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Notice of Allowability	Application No.	Applicant(s)	
	10/712,834	BARTH ET AL	
	Examiner	Art Unit	
	Jaworski Francis J.	3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to Interview 3/16/06.
2. ☒ The allowed claim(s) is/are 1 - 29.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|--|--|


 Francis J. Jaworski
 Primary Examiner

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Kenneth L. Green on March 16, 2006.

The following changes were agreed upon:

In Claim 1 line 2 after "artery " has been added -- for measuring the arterial wall thickness in a patient --, and in line next to last, " and " deleted, and In line last after " bulb " has been added --, and measuring the arterial wall thickness of the patient in the ROI. --

In Claim 19 line 2 after " analysis" -- in a patient -- has been added, and in line next to next to last " and " has been deleted, and in line last after " match " has been added -- , and thereafter analyzing the Intima Media Thickness (IMT) in said ROI in said patient --.

Additionally, Claims 21 -- 25 have been amended as follows:

21. **(Currently amended)** A method for defining a Region Of Interest (ROI) of the carotid artery for measuring the arterial wall thickness in a patient, comprising:

providing at least one image of a portion of the carotid artery;

slicing the image into vertical slices;

~~comparing at least one of the vertical slices to at least one other of the vertical slices to find a bifurcation of the carotid artery~~

identifying stripes within each slice, which stripes correspond to vessels; and

identifying a bifurcation of the carotid artery when two stripes in a higher first slice correspond to one stripe in a lower second slice,

positioning the ROI below the bifurcation, and

measuring the arterial wall thickness of the patient within the ROI.

22. **(Currently amended)** The method of Claim 21, wherein identifying a bifurcation of the carotid artery when two stripes in the first slice correspond to one stripe in the second slice comprises identifying a bifurcation of the carotid artery when two stripes in the first slice correspond to one stripe in the second slice, wherein each of the two stripes in the first slice at least partly overlap the one stripe in the second slice.
~~comparing at least one of the vertical slices to at least one other of the vertical slices to find the bifurcation of the carotid artery comprises:~~

~~identifying stripes within each slice, which stripes correspond to vessels; and~~

~~comparing the stripes in proximal slices to find the bifurcation.~~

23. **(Currently amended)** The method of Claim 21 22, wherein identifying stripes ~~withing~~ within each slice comprises identifying three bands comprising:

a dark band corresponding to a vessel lumen; and

light bands above and below the dark band, wherein the light bands correspond
5 to vessel walls.

24. **(Currently amended)** The method of Claim 21 23, wherein identifying a bifurcation of the carotid artery when two stripes in the first slice correspond to one stripe in the second slice comprises identifying a bifurcation of the carotid artery when two stripes in

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the first slice correspond to one stripe in a substantially adjacent second slice.
~~comparing at least one of the vertical slices to at least one other of the vertical slices~~
~~includes comparing substantially adjacent vertical slices.~~

25. (Currently amended) The method of Claim 21 22 wherein identifying a bifurcation of the carotid artery when two stripes in the first slice correspond to one stripe in the second slice ~~comparing the stripes in proximal slices to find the bifurcation~~ includes:

identifying if the first slice includes more stripes than the second slice, which first
5 slice is above of the second slice;

identifying if a first top edge of a higher stripe in the first slice corresponds to a second top edge of a single stripe in the second slice; and

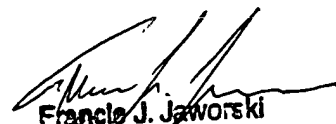
identifying if a first bottom edge of a lower stripe in the first slice corresponds to a second bottom edge of the single stripe in the second slice.

The following is an examiner's statement of reasons for allowance: All base claims as now amended define over E.g. Fritz et al (US6835177, of record) Figs. 4 and 27-29 and the vessel wall pixel intensity transition techniques discussed in cols. 5 – 6. Additionally all base claims as amended are considered to result in the concrete result of the performance of a measurement or analysis on the artery of a patient.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication should be directed to Jaworski Francis J. at telephone number 571-272-4738.

FJJ:fjj / 031606


Francis J. Jaworski
Primary Examiner